

**01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ**

RARITAN RIVER BASIN

LOCATION.--Lat 40°32'49", long 74°41'47" referenced to North American Datum of 1983, Branchburg Township, Somerset County, NJ, Hydrologic Unit 02030105, on left downstream wingwall of bridge on Studdiford Drive (South Branch Road) at village of South Branch, 0.8 mi upstream from mouth, and 2.7 mi southeast of Readington.

DRAINAGE AREA.--265 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 1976-83, 1998 to current year. Annual maximum, water years 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 45.54 ft above NGVD of 1929.

REMARKS.--Radio stage telemetry at station. Flow regulated by Spruce Run (see 01396790) and Round Valley (see 01397050) Reservoirs. Peak stages at this gage maybe affected by backwater from the North Branch Raritan River.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.29 ft, Sep 16, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.17 ft, Mar 8 at 2300.

**DISCHARGE MEASUREMENTS**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Date	Discharge, in ft/s
Nov 14, 2007	135
Feb 28, 2008	946
Apr 29, 2008	1,100
Jun 2, 2008	209
Sep 3, 2008	210

## 01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-83, 1998 to current year.

REMARKS.--Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 8.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 3

[Remark codes: &lt;, less than; E, estimated.]

Date	Time	Instantaneous discharge, ft <sup>3</sup> /s (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf 25 degC $\mu$ S/cm (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)
Nov 14...	1240	135	1.5	.058	.045	755	12.2	100	7.9	354	10.5	6.7	120
Feb 28...	1240	946	6.6	.061	.046	762	14.5	107	7.7	327	-6.0	2.6	72
Jun 02...	1110	209	4.6	.071	.054	752	7.7	88	7.6	304	26.0	21.0	91
Sep 03...	1100	210	1.6	.059	.044	756	8.6	101	8.1	275	27.5	22.9	82

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 3

[Remark codes: &lt;, less than; E, estimated.]

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO <sub>3</sub> (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO <sub>2</sub> (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non-filterable, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Nov 14...	28.5	12.0	2.37	21.1	82	41.3	E.07	10.8	21.3	E195	197	1	.69
Feb 28...	17.7	6.66	1.60	29.8	44	55.7	E.07	10.0	15.0	E169	179	4	.16
Jun 02...	22.1	8.74	1.92	18.7	67	36.8	E.06	8.6	17.7	E160	170	7	.34
Sep 03...	19.3	8.22	2.03	19.4	64	33.9	E.08	3.5	14.8	E141	174	1	.27

## 01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 3 of 3

[Remark codes: &lt;, less than; E, estimated.]

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L as P (00666)	Phos- phorus, water, unfltrd mg/L as P (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Boron, water, fltrd, µg/L (01020)
<b>Nov</b> <b>14...</b>	.018	1.87	E.02	2.6	E2.6	.047	.054	.061	.2	<.04	.2	1.9	33
<b>Feb</b> <b>28...</b>	.012	1.34	.07	1.5	1.6	.017	.021	.035	.5	<.04	.5	2.7	15
<b>Jun</b> <b>02...</b>	.038	1.07	.05	1.4	1.5	.030	.043	.060	.4	<.04	.4	2.6	24
<b>Sep</b> <b>03...</b>	.016	.46	.04	.73	.77	.031	.038	.044	.3	<.04	.3	2.7	20